

Date: 3/21/60

1960

Regional Administrator  
USEPA  
230 South Dearborn  
Chicago, Illinois 60604

RECEIVED  
WMD RCRA *Comp*  
RECORD CENTER  
1-27-93

Re: Soft Hanger Demonstration and Certification for

Name: BASF Corp. EPA ID No.: MI0 064197742  
Address: 1609 Biddle Avenue  
Wyandotte, MI 48192 Phone No.: (313) 246-6836

Dear Sir:

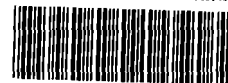
The Land Disposal Restrictions (40 CFR Part 268) prohibit the land disposal of listed hazardous wastes which do not meet treatment standards specified by the US EPA. 40 CFR 268.8(a) requires generators of "soft-hanger" wastes (First- and Second-third wastes for which no treatment standard has yet been established) to:

- (1) Make a good faith effort to locate and contract with treatment and recovery facilities which use the practically-available technology which yields the greatest environmental benefit, and
- (2) Submit appropriate documentation of that effort to the EPA Regional Administrator.

This letter is intended to serve as a soft-hanger demonstration and certification for the following waste streams:

<u>EPA Waste Code &amp; Description</u>	<u>EPA Waste Code &amp; Description</u>	<u>EPA Waste Code &amp; Description</u>
<u>U044 Chloroform</u>		
<u>U080 Methylene Chloride</u>		
<u>U151 Mercury</u>		
<u>U221 Toluene Diamine</u>		
<u>U223 Toluene Diisocyanate</u>		

US EPA RECORDS CENTER REGION 5



1004615

All of the soft-hanger waste streams noted above are "U" or "P" code hazardous wastes which, by definition, are commercial chemical products intended to be discarded. These wastes were generated as the result of a laboratory cleanout operation conducted on our behalf by Clean Harbors of Natick, Inc. None of the wastes included above are spent solvent (F001-F005) or dioxin (F020-F028) wastes.

Clean Harbors of Natick, Inc. has contacted the following hazardous waste treatment and recovery facilities on our behalf and, based on those inquiries, determined that incineration is the best practically-available treatment method for above-described waste streams. In no case will any of the above-listed wastes (or residues) be disposed or treated in a land disposal unit in excess of the California List prohibition levels.

1. Clean Harbors of Braintree, Inc.  
385 Quincy Avenue  
Braintree, MA 02184 (617) 849-1807  
Contact: Doug Lanich (7/14/89): "All material sent to this facility are organic materials (mostly solvents). This material is blended for incineration which is the best available method of treatment for this material."

2. Trade Waste Incineration  
7 Noble Avenue  
Sauget, IL 62201 (618) 271-2804  
Contact: Dennis Warchol (7/14/89):  
"Incineration is the practically available technology which yields the greatest environmental benefit. The waste is principally organic residues which are best destroyed by incineration"

3. ENSCO, Inc.  
American Oil Road  
El Dorado, AR 71730 (501) 223-4160  
Contact: Eva Dodd (7/14/89): "All material is incinerated on site. Incineration is the best-available technology for the destruction of organic material."

4. ThermalKEN  
454 S. Anderson Road  
Rock Hill, SC 29730 (803) 329-9690  
Contact: Nickie Humphries (7/14/89):  
All material is incinerated on site in a fixed hearth kiln. All ash is sent to secure chemical landfill. Incineration is the best practical treatment technology for the destruction of organic material."

5. Tricil, Ltd.  
1829 Allansport Road  
Thorold, Ont., CANADA (416) 227-7872  
Contact: Gregg Renneberg (7/14/89):  
"Material is blended for incineration offsite. Nonincinerables are neutralized and solidified which significantly reduces the toxicity and hazards of that material."

6. CUN/SEA Chemical Services  
11700 S. Stony Island Avenue  
Chicago, IL 60617 (312) 646-5700  
Contact: Bruce Marti (7/14/89): "The soft-hammer waste that is accepted at this facility is incinerated which is the best-available treatment technology for the destruction of organic material and residues."

#### Certification

"I certify under penalty of law that the requirements of 40 CFR 268.0 (a) (1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Adam C Bicker  
Name (Print)

WASTE COORDINATOR  
Title  
Adam C Bicker  
Signature

(IF APPLICABLE)

This soft-hammer demonstration/certification replaces previous notice(s) submitted to EPA on the following date(s):

\_\_\_\_\_  
\_\_\_\_\_

CERTIFIED MAIL - RETURN RECEIPT REQUESTED  
P 401 235 629

March 26, 1990

RECEIVED

OFFICE OF THE REGIONAL ADMINISTRATOR  
WASTE MANAGEMENT DIVISION  
EPA, REGION V

Mr. Valdas V. Adamkus  
USEPA Region V  
Region V Administrator  
230 S. Dearborn Street  
Chicago, IL 60604

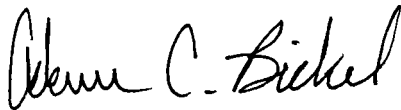
Re: Soft Hammer Demonstration and Certification Documents

Dear Mr. Adamkus:

Enclosed you will find the required "soft hammer" demonstration and certification forms for the chloroform (U044), methylene chloride (U080) and mercury (U151) waste streams.

If any further information is required, please contact me at (313) 246-6836.

Sincerely,



Adam C. Bickel  
Ecology Services Technologist I

acb  
enc.

cc: State of Michigan DNR  
Waste Management Division  
505 W. Main Street  
Northville, MI 48167

RECEIVED  
DEC 18 1989  
OFFICE OF RCRA  
Waste Management Division  
U.S. EPA, REGION V

December 8, 1989

MID 064 197 742

1/26/93

Mr. Valdas V. Adamkus  
USEPA Region V  
Region V Administrator  
230 S. Dearborn Street  
Chicago, IL 60604

RECEIVED  
WMD RCRA  
RECORD CENTER

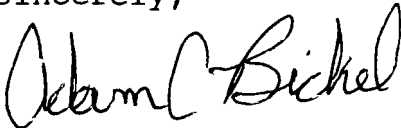
Re: Soft Hammer Demonstration and Certification Documents

Dear Mr. Adamkus:

Enclosed you will find the required "soft hammer" demonstration and certification forms for toluenediamine (U221) and toluene diisocyanate (U223) first-third listed waste streams.

If any further information is required, please contact me at (313) 246-6836.

Sincerely,



Adam C. Bickel  
Waste Coordinator

acb  
enc.

cc: State of Michigan DNR  
Waste Management Division  
505 W. Main Street  
Northville, MI 48167

**First & Second Third Lan Ban Wastes**  
**Demonstration and Certification Of Practically Availiable Treatment For This**  
**Waste Which Yields The Greatest Environmental Benefit**  
**"Soft Hammer" Wastes**

Company Name

Address

**I. Identification Information**

EPA ID No. MID 064 197742 Manifest No. HA-278538 Date 12-8-89

Completed By Adam C Bruce Title Waste Coordinator

This shipment as referenced by the Manifest Number contains the waste(s) which correspond to the following USEPA Hazardous Waste Number(s): U221, U223.  
Additional Waste Numbers may be listed on the manifest.

**II. Demonstration**

In order to determine that NAME OF THE SPECIFIC WASTE TREATMENT TECHNOLOGY CHOSEN OR REQUIRED is the practically available technology which yields the greatest environmental benefit, I contacted the facilities and officials listed below:

1. Official BETH HERRISON  
Title CUSTOMER SERVICE REP  
Company ENSCO  
Address 1121 BOYCE RD. SUITE 400 PITTSBURGH, PA 15241  
Telephone No. (412) 941-0100  
Date of Contact 11-18-89
2. Official \_\_\_\_\_  
Title \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone No. \_\_\_\_\_  
Date of Contact \_\_\_\_\_
3. Official \_\_\_\_\_  
Title \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone No. \_\_\_\_\_  
Date of Contact \_\_\_\_\_

Note: Part II need only be completed with the first shipment of waste regulated by the land ban rules.

### III. Certification

I certify under penalty of law that the requirements of 40 CFR 268.8 (a)(1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name Adam C. Bicker Signature Adam C. Bicker Date 12/8/89



ENSCO, INC.  
AMERICAN OIL ROAD  
EL DORADO, AR 71730

# LAND DISPOSAL RESTRICTION NOTIFICATION FORM

## INSTRUCTIONS

This Land Disposal Restriction Notification Form has been specifically designed to provide ENSCO information required to treat, store, or dispose of your waste.

Hazardous waste regulations (40 CFR 268) require generators to provide a land disposal restriction notification with each manifest used for shipment of a restricted waste. This form has been designed to combine the notification requirements for all restricted wastes onto one form. For a shipment of only one category of restricted waste, read the instructions and complete the section of the form applicable to that waste. For shipments involving multiple categories of waste (i.e., Spent Solvents, California List, Hard Hammer, and/or Soft Hammer) complete only those sections applicable to the categories of waste on the shipment.

Answers must be provided for all questions/items for each applicable category of restricted waste on the attached form. Remove the instruction pages and print (ink only) or type the answer or mark the appropriate blanks so that all pages are clearly legible. If a particular category of waste is not applicable to your waste stream(s), you must signify by leaving that section blank. If additional information is submitted to complete an answer, indicate on the form that the additional information is attached as Attachment 1, Attachment 2, etc. This completed form and any attachments must accompany the manifest with the shipment.

## SPECIAL INSTRUCTIONS

Hazardous waste regulations require the items set forth below be provided to the TSD.

### PART I - GENERATOR INFORMATION

Manifest number - indicate the manifest number for applicable waste stream(s) listed on this form. If additional manifests are required for the shipment, each manifest requires its own separate Land Disposal Notification Form.

### PART II - NOTIFICATION

#### A. Spent Solvent Wastes

If you are the generator of restricted Spent Solvent Waste(s) as specified under 40CFR 268.30, shipping to ENSCO, please mark the blank identifying that the Spent Solvent Notification is applicable to your waste stream(s) listed on the manifest.

Waste Code — In the space provided, list all USEPA Hazardous Waste Codes applicable to the Restricted Spent Solvent wastes as shown on the manifest.

Identification of waste — Mark the appropriate blank describing the method you used to determine that your waste stream(s) is restricted from land disposal. Note: If waste analysis data was used to determine the applicability of land disposal restrictions, copies of that data must be attached.

#### B. California List Wastes

If you are the generator of restricted California List Waste(s) as specified under 40CFR 268.32 shipping to ENSCO, please mark the blank identifying that the California List Notification is applicable to your waste stream(s) listed on the manifest.

Waste Code — In the space provided list all USEPA Hazardous Waste Codes applicable to the Restricted California List wastes as shown on the manifest.

Identification of waste — Mark the appropriate blank describing the method you used to determine that your waste stream(s) is restricted from land disposal. Note: If waste analysis data was used to determine the applicability of land

disposal restrictions, copies of that data must be attached.

### C. Hard Hammer Wastes

If you are the generator of restricted waste(s) identified under 40CFR 268.33 and 268.34 where the treatment standard is expressed as a Constituent Concentration in the Waste or an Extract, or as a specific treatment technology, please mark the blank identifying that the Hard Hammer notification is applicable to your waste stream(s) listed on the manifest.

**Waste Code** — In the space provided, list all USEPA Hazardous Waste Code applicable to the Restricted Hard Hammer wastes as shown on the manifest. If you are shipping more than one Hard Hammer waste on this manifest, please provide this information on the Hard Hammer Continuation Attachment.

**Identification of waste** — Mark the appropriate blank describing the method you used to determine that your waste stream(s) is restricted from land disposal. Note: If waste analysis data was used to determine the applicability of land disposal restrictions, copies of that data must be attached.

Where a treatment technology (i.e., incineration) is expressed as the treatment standard, specify the technology in the space provided.

Where treatment standards are expressed as a Constituent Concentration in the Waste (CCW) or Extract (CCWE) fill in the appropriate standards. For specific treatment standards, refer to 40CFR Subpart D. If the manifest includes more than one Hard Hammer waste, please provide the required information on the Hard Hammer Continuation Attachment.

### D. Soft Hammer Wastes

If you are the generator of restricted waste(s) identified under 40CFR 268.33 and 268.34 where no treatment standards are established, mark the blank identifying that the Soft Hammer Notification is applicable to your waste stream(s) listed on the manifest.

**Waste Code** — In the space provided list all USEPA Hazardous Waste Codes applicable to the Restricted Soft Hammer wastes as shown on the manifest. If you are shipping more than one Soft Hammer waste on this manifest, please provide this information on the Soft Hammer Continuation Attachment.

**Identification of waste** — Mark the appropriate blank describing the method you used to determine that your waste stream(s) is restricted from land disposal. Note: If waste analysis data was used to determine the applicability of land disposal restrictions, copies of that data must be attached.

For each individual waste stream in this category, as required by 40CFR 268.8, **you must attach copies of a valid Certification and Demonstration that you have submitted to your USEPA Regional Administrator.** Note: The Demonstration need only accompany the first shipment of the waste stream to ENSCO. Subsequent shipments require the Certification and Notification only. Ensco does not provide a certification and demonstration form for Soft Hammer wastes as the certification and demonstration is the full responsibility of the generator to establish and submit to the regional administrator.

## PART III - CERTIFICATION OF NOTIFICATION

This form must be signed by the person responsible for shipments or the waste.

ENSOCO BELIEVES INFORMATION IN THIS FORM REPRESENTS AN ACCURATE INTERPRETATION OF THE COMPLEX RULES DISCLOSED. GENERATORS OF HAZARDOUS WASTE WHICH MAY BE AFFECTED BY THE LAND DISPOSAL RESTRICTIONS ARE REQUIRED TO PROVIDE NOTIFICATION TO THE TREATMENT STORAGE AND DISPOSAL FACILITY OF THE APPROPRIATE TREATMENT STANDARDS FOR THEIR WASTE. **ENSOCO WILL NOT BE RESPONSIBLE FOR MISINTERPRETATIONS OF THESE RULES BY THE GENERATORS.** THEREFORE, GENERATORS SHOULD CONSULT WITH THEIR LEGAL AND ENVIRONMENTAL OFFICES TO ASSURE REGULATORY COMPLIANCE.





ENSCO, INC.  
AMERICAN OIL ROAD  
EL DORADO, AR 71730

# LAND DISPOSAL RESTRICTION NOTIFICATION FORM

## I. GENERAL INFORMATION

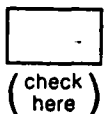
GENERATOR NAME BASF - WYANDOTTE  
ADDRESS 1609 BIDDLE  
WYANDOTTE, MI 48192  
USEPA ID NO. MI0 064 197 742

MANIFEST NO. AR-278538  
COMPLETED BY Adam C Bicker  
TITLE WASTE COORDINATOR  
DATE 12/8/89

## II. NOTIFICATION

This form is submitted to ENSCO, Inc. in accordance with regulations as set forth in 40CFR Part 268 governing land disposal of certain restricted hazardous wastes. In accordance with the requirements specified above, I have checked the appropriate blank(s) below outlining how my waste(s) must be managed.

### A. SPENT SOLVENT WASTES



This shipment, as referenced by the above manifest number, contains waste(s) which correspond to USEPA Hazardous Waste Code(s) \_\_\_\_\_

\_\_\_\_\_ These wastes are restricted from land disposal as specified under 40CFR 268.30 and are identified as Spent Solvent Wastes. The constituent composition listed above is based upon:

- \_\_\_\_\_ waste analysis data (attached) or  
\_\_\_\_\_ my thorough knowledge of the waste stream.

The above referenced waste(s) must be treated to meet the treatment standard expressed as Constituent Concentration in the Waste Extract as outlined in 40CFR 268.41 Table CCWE below.

Table CCWE—Constituent  
Concentrations in Waste Extract

F001—F005 spent solvents	Concentration (in mg/l)	
	Wastewaters containing spent solvents	All other spent solvent wastes
Acetone .....	0.05	0.59
n-Butyl alcohol .....	5.0	5.0
Carbon disulfide .....	1.05	4.81
Carbon tetrachloride .....	.05	.96
Chlorobenzene .....	.15	.05
Cresols (and cresylic acid) .....	2.82	.75
Cyclohexanone .....	.125	.75
1,2-Dichlorobenzene .....	.65	.125
Ethyl acetate .....	.05	.75
Ethylbenzene .....	.05	.053
Ethyl ether .....	.05	.75
Isobutanol .....	5.0	5.0
Methanol .....	.25	.75
Methylene chloride .....	.20	.96
Methylene chloride (from the pharmaceutical industry) .....	12.7	.96
Methyl ethyl ketone .....	0.05	0.75
Methyl isobutyl ketone .....	0.05	0.33
Nitrobenzene .....	0.66	0.125
Pyridine .....	1.12	0.33
Tetrachloroethylene .....	0.079	0.05
Toluene .....	1.12	0.33
1,1,1-Trichloroethane .....	1.05	0.41
1,1,2-Trichloro-1,2,2-Trifluoroethane .....	1.05	0.96
Trichloroethylene .....	0.062	0.091
Trichlorofluoromethane .....	0.05	0.96
Xylene .....	0.05	0.15

Additional restricted wastes (California List, Hard Hammer, Soft Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

## B. CALIFORNIA LIST WASTES



This shipment, as referenced by the above manifest number, contains waste(s) corresponding to USEPA Hazardous Waste Code(s) \_\_\_\_\_. These wastes are restricted from land disposal under 40CFR 268.32 and are identified as California List Waste. The constituent compositions used for identification are based upon:

\_\_\_\_\_ waste analysis data (attached) or  
\_\_\_\_\_ my thorough knowledge of the waste stream.

The above referenced waste(s) must be treated to meet the treatment standards as set forth in 40CFR 268 Subpart D, or where no treatment standard exists, the waste must be treated in accordance with the requirements specified in 40CFR 268.32 as follows:

Liquid hazardous wastes containing the following contaminants must be treated to at least the specified levels or must be rendered non-liquid per the paint filter test.

- (1) Free cyanides at concentrations greater than or equal to 1000 mg/l
- (2) One (or more) of these metals (or elements) at concentrations greater than or equal to those specified below:
  - a. Arsenic and/or compounds (as As) 500 mg/l;
  - b. Cadmium and/or compounds (as Cd) 100 mg/l;
  - c. Chromium VI and/or compounds (as CrVI) 500 mg/l;
  - d. Lead and/or compounds (as Pb) 500 mg/l;
  - e. Mercury and/or compounds (as Hg) 20 mg/l;
  - f. Nickel and/or compounds (as Ni) 134 mg/l;
  - g. Selenium and/or compounds (as Se) 100 mg/l;
  - h. Thallium and/or compounds (as Th) 130 mg/l.
- (3) Liquid hazardous wastes having a pH less than or equal to two (2.0).
- (4) Wastewaters containing Halogenated Organic Compounds (HOC's) less than 1000 mg/l; or for liquids and non-liquid HOC non-wastewaters greater than 1000 mg/l. The waste must be incinerated in an incinerator operating in accordance with 40CFR 264 and 265 or in a boiler or industrial furnace.
5. Liquid hazardous wastes containing PCB's at concentrations greater than or equal to 50 ppm and less than 500 ppm must be incinerated in accordance with 40 CFR 761.60 or 761.70. Incineration of these wastes must also be in accordance with 40CFR 264, 265 and 266.

Additional restricted wastes (Solvent, Hard Hammer, Soft Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

## C. HARD HAMMER WASTES



This shipment, as referenced by the above manifest number, contains waste(s) which correspond to USEPA Hazardous Waste Code(s) \_\_\_\_\_. These wastes are restricted from land disposal under 40CFR 268.33 and 268.34.

The above referenced waste(s) must be treated to the appropriate treatment standard as set forth in 40CFR 268.41, 268.42, and/or 268.43. The applicable treatment standard for each waste code is listed below or provided on additional attached sheets:

USEPA Hazardous Waste Code \_\_\_\_\_

The constituent composition used for identification is based upon:

\_\_\_\_\_ waste analysis data (attached) or  
\_\_\_\_\_ my thorough knowledge of the waste stream.

The treatment standard is expressed as \_\_\_\_\_  
(Specify treatment technology)

Specify the applicable treatment standard in the appropriate space below:

(For non-wastewater treatment standards, specify by marking whether the standard is a Constituent Concentration in the Waste (CCW) or Extra (CWE). Note: Certain waste codes may have a treatment standard.)

(Waste Code)	Non-Wastewater		Specify Concentrations in mg/l or mg/kg	
	CCW	CCWE	mg/kg	mg/l

(Waste Code)	Wastewater	Specify Concentrations as mg/l

If additional space is required or additional Hard Hammer waste codes are listed on the manifest attach Hard Hammer Continuation Attachment.

Additional restricted wastes (Solvents, California List, Soft Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

#### D. SOFT HAMMER WASTES



This shipment, as referenced by the above manifest number, contains waste(s) corresponding to USEPA Hazardous Waste Code(s) U221, U223. These wastes are restricted from land disposal under 40CFR 268.33 and 268.34.

No treatment standards exist for the above referenced waste(s) and therefore I have determined through a good faith effort that incineration prior to land disposal is the practically available treatment which provides the greatest environmental benefit; that this waste is the subject of a valid Demonstration and Certification that I have submitted to my regional administrator; and that the waste(s) must be treated in accordance with my Demonstration as required by 40CFR 268.8.

U223, U221 USEPA Hazardous Waste Code

The constituent composition used for identification is based upon:

- ☐ waste analysis data (attached) or
- ☒ my thorough knowledge of the waste stream.
- ☒ Associated Demonstration Attached (Y/N)
- ☐ Associated Certification Attached (Y/N)

(Copy of demonstration required for first shipment of waste only)

Please attach Soft Hammer Continuation Attachment for additional Soft Hammer waste codes listed on the manifest.

Additional restricted wastes (Solvents, California List, Hard Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

#### I. CERTIFICATION OF NOTIFICATION

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

John C. Baker Signature Waste Coordinator Title 12/8/89 Date

O: WMD -  
CC: RF

October 12, 1988

Mr. Valdas V. Adamkus  
Region V Administrator  
230 S. Dearborn Street  
Chicago, IL 60604


Subject: Soft Hammer Demonstration and Certification  
Documents

Dear Mr. Adamkus:

Enclosed you will find the required "Soft Hammer"  
demonstration and certification forms.

If any further information is required please contact me at  
(313) 246-6429.

Sincerely,

  
Lyman A. Anderson  
Ecology Supervisor

enclosure

cc: State of Michigan DNR  
Waste Management Division  
505 W. Main Street  
Northville, MI 48167

RECEIVED

OCT 17 1988

U. S. EPA REGION 5  
OFFICE OF REGIONAL ADMINISTRATOR

From: BASF Chemical Corporation  
EPA ID# MTD064197742  
1609 Biddle Ave  
Wyandotte, MI 48192

To: Regional Administrator U.S. E.P.A.

Mr. Valdas V. Adamkus  
Region V U.S. E.P.A.  
230 S. Dearborn Street  
Chicago, IL 60604

Re: Soft Hammer Demonstration/Certification

In accordance with the Environmental Protection Agency's land disposal restrictions governing the first third schedule wastes, I have enclosed a soft hammer demonstration and certification as per CFR 168.8(a)(2) for the waste stream described by:

US EPA Hazardous Waste Code(s): U223

SolidTek profile number: 0127 - 36

Common Name: Toluene Diisocyanate

The demonstration reflects our efforts to locate practically available treatment that affords the greatest environmental benefit. Based on our search for such treatment, we have determined that (check one):

- 1). No practically available treatment exists, See attached demonstration, attachments 2 and 3, for further details.
- X   2). The best practically available treatment is: D  
(insert the treatment numbers(s) from the attachment 4). See the attached demonstration, attachments 2,3, and 4 for further details.

If any further information is required, please contact me at:

(313) 246 - 6429 (telephone number).

 (Signature)

Lyman A Anderson (Type or Printed Name)

Ecology Supervisor (Title)

10/12/88 (Date)

# SOFT HAMMER DEMONSTRATION - ATTACHMENT 2

FACILITY OWNER/OPERATOR	LOCATION	TREATMENT ME )	TELEPHONE	CONTACT	DATE	EXPLA	ION *
1. SolidTek Systems, Inc. 5371 Cook Road Morrow, GA 30260		Fuels Blending and Incineration	(419) 874-8144	Jeff Huskisson	10/12/88		D
2.							
3.							
4.							

\* - EXPLANATION - for no available treatment - insert the number key from Attachment 3.  
for available treatment - insert the letter key from Attachment 4.

### ATTACHMENT 3

#### FIRST THIRD "SOFT-HAMMER" DEMONSTRATION No Available Practical Alternative to Land Disposal

##### Explanation Of Why No Treatment Is Practically Available

I have not been able to locate practically available treatment or recovery for the waste described in the cover letter because, (refer to checked items, and any additional comments):

- (1) \_\_\_\_\_ No recovery facilities have been located which will be able to recover the hazardous constituents of this waste.
- (2) \_\_\_\_\_ There is no safe and legal treatment or recovery operation which I can perform practically at my site that will appreciably reduce the toxicity or mobility of the hazardous constituents of the waste.
- (3) \_\_\_\_\_ I have not been treating this waste at my site in the past, using a treatment technology which has been found to appreciably reduce the toxicity or mobility of the hazardous constituents of the waste.
- (4) \_\_\_\_\_ Stabilization treatment will not appreciably reduce the toxicity or mobility of the hazardous constituents of this waste.
- (5) \_\_\_\_\_ Incineration, thermal oxidation or other destruction technologies will not appreciably reduce the toxicity or mobility of the hazardous constituents of the waste.
- (6) \_\_\_\_\_ I have examined the possibilities of recovery/recycling, incineration, other destruction technologies, and stabilization, in that order or preference, I have not been able to locate any such treatment facilities that will accept this waste.
- (7) \_\_\_\_\_ The cost of treatment, shipment and disposal at the treatment/recovery facilities that have been located is greater than or equal to twice the cost of shipment and disposal at the RCRA landfill.

Additional Comments:

(8) \_\_\_\_\_

ATTACHMENT 4  
FIRST THIRD "SOFT-HAMMER DEMONSTRATION  
Soft-Hammer Waste For Which Alternative Treatment or Recovery Has Been Located

- A Rotary Kiln Incineration is a practically available technology that yields the greatest environmental benefit. This waste is principally organic residues which are best destroyed by incineration.
- B Liquid Injection Incineration is a practically available technology that yields the greatest environmental benefit. This waste is principally pumpable organic residues which are best destroyed by incineration.
- C Fuels Blending is a practically available technology that yields the greatest environmental benefit. This waste has a heating value greater than or equal to 5,000 BTU per pound and can be best reused as a hazardous waste fuel.
- D A combination of Fuels Blending, and/or Rotary Kiln or Liquid Injection is a practically available technology that yields the greatest environmental benefit. This is due to the properties of my waste which may vary slightly, from one load to the next. Solid nondispersible residues will need to be incinerated; but the pumpable or dispersible portions may be blended for hazardous waste fuels usage (when the BTU's, chlorine, ash, etc. are within the required ranges); or else incinerated.
- E Chemical Precipitation (with filtration or decanting) is a practically available technology that yields the greatest environmental benefit. This should reduce the toxicity/mobility of the hazardous constituents by reducing the toxic volume of the waste.
- F Filtration is a practically available technology that yields the greatest environmental benefit. This should reduce the toxicity/mobility of the hazardous constituents by reducing the toxic volumes of the waste.
- G Stabilization is a practically available technology that yields the greatest environmental benefit. Stabilization will reduce the mobility of the hazardous constituents of the waste. I have examined recovery and destruction technologies and found that they were not practically available for the following reason(s):
- H Chemical oxidation is a practically available technology that yields the greatest environmental benefit. Chemical oxidation will reduce the toxicity of hazardous constituents in the waste.

This waste is not suitable for incineration or fuels due to:

- I the low percentage of hazardous organic constituents presents,  
J the low heating value of the waste,  
K the high percentage of inorganic constituents present,  
L the lack of located available capacity of incineration or fuels blending facilities.

This waste is not suitable for recovery due to:

- M The hazardous constituents are present in concentrations that make recovery technologically impossible.  
N The hazardous constituents are present in concentrations that make recovery economically infeasible.  
O No recovery facilities were located that could treat this type of waste.  
P No recovery facilities were located that had capacity to treat this type of waste.  
Q The treatment technology identified above is a past practice that has been demonstrated to meaningfully reduce the toxicity and/or mobility of the waste.

Additional Comments:



Generator Name: BASF Corp. SolidTek Profile Number: 0127-02  
EPA ID Number: MID064197742 Manifest Number: 12835

X	<u>A. SOFT-HAMMER WASTE FOR WHICH ALTERNATIVE TREATMENT OR RECOVERY HAS BEEN LOCATED</u>
---	--

☐ B. SOFT-HAMMER WASTE FOR WHICH DISPOSAL IN LANDFILL OR SURFACE IMPOUNDMENT IS THE ONLY PRACTICAL ALTERNATIVE TO TREATMENT CURRENTLY AVAILABLE

C. SOFT-HAMMER WASTE HAS BEEN TREATED BY TREATMENT OR RECOVERY FACILITY

**D. SOFT-HAMMER WASTE DESTINED FOR LAND DISPOSAL OTHER THAN IN LANDELL OR SURFACE IMPOUNDMENT (e.g. DEEP INJECTION WELL) OR SUBJECT TO A TWO YEAR VARIANCE**

Lynn Anderson Ecology Supervisor 10/12/98  
Signature Title Date

**List of "Soft-Hammer" Wastes Under First-Third (8/8/88)**  
(See 40 CFR Part 261 For More Information on these Wastes)

F006-(Wastewater)	K083-(Except no	P020	P110	U053	U159
F007	ash sub-	P030	P115	U061	U171
F008	category)	P036	P120	U063	U177
F009	K084	P037	P122-when present	U064	U180
F019	K085	P039	at concentrations	U066	U185
K004-(Wastewater)	K086-(Solvent sludge,	P041	greater than 10%	U067	U188
K008-(Wastewater)	caustic water wash	P048	P123	U074	U192
K011	and sludge sub-	P050		U077	U200
K013	category)	P058	U007	U078	U209
K014	K101-(High arsenic	P059	U009	U086	U210
K017	subcategory	P063	U010	U089	U211
K021-(Wastewater)	greater than 1%)	P068	U012	U103	U219
K022-(Wastewater)	K103-(High arsenic	P069	U016	U105	U220
	subcategory	P070	U018	U108	
K031	greater than 1%)	P071	U019	U115	U221
K035		P081	U022	U122	U223
K036-(Wastewater)	K106	P082	U029	U124	U226
K046-(Explosive Non-		P084	U031	U129	U227
Wastewater)	P001	P087	U036	U130	U228
K060-(Wastewater)	P004	P089	U037	U133	U237
K061-(Wastewater)	P005	P092	U041	U134	U238
K069-(Calcium	P010	P094	U043	U137	U248-when present
sulfate sub-	P011	P097	U044	U151	at concentrations
category)	P012	P102	U046	U154	0.3% or less
K069-(Wastewater)	P015	P105	U050	U155	U249-when present
K073	P016	P108	U051	U157	at concentrations
	P018			U158	10% or less

**BACKGROUND INFORMATION REGARDING "SOFT-HAMMER" WASTES**

If EPA fails to set treatment standards by the statutory deadline for any hazardous wastes in the first or second-third of the schedule, those wastes become "soft-hammer" wastes and several requirements must be met prior to disposal in a landfill or surface impoundment:

- 1) A demonstration must be made to the Regional Administrator of EPA that no practical and available treatment could be found for the waste, or treatment has been found which provides the greatest environmental benefit that is practically available.\*
- 2) The demonstration must include the names, addresses and telephone numbers of treatment facilities contacted, the names of facility officials contacted, and the contact dates.
- 3) A copy of the demonstration and all supporting documents must accompany the initial shipment of the waste to the facility chosen in the demonstration.
- 4) A certification (such as those on the front side of this form) must be completed and sent to the Regional Administrator along with the demonstration. The certification must accompany every shipment to the facility chosen in the demonstration.

\*Treatment is defined as processing which reduces the toxicity of the waste or the likelihood of migration of hazardous constituents from the waste. "Practically available treatment" is treatment which is accessible to the generator for a cost ratio set by EPA. The cost ratio that is practical is: ~~cost of treatment, transportation & disposal~~ = 1.5 to 2.5

EPA will make the final judgement of what is practical based on the demonstration submitted. However, EPA makes it clear that if a waste has been treated in the past, at least that level of treatment is considered to be practical.

EPA has provided a generic hierarchy of preferred treatment methods for selected wastes in the Federal Register (FR 53, 159, pgs. 31175 & 31176, August 17, 1988). Additionally EPA favors recovery/recycling facilities as the best method, followed by destruction technologies such as incineration (especially for organics), and then stabilization where recycling or destruction is unavailable or inappropriate (especially for inorganics).

**INSTRUCTIONS FOR COMPLETING THIS FORM**

**MARK BOX A** on the front of this form if you generate (or have treated) one of the hazardous wastes listed above, and you have located a treatment or recovery process which yields the greatest environmental benefit.

**MARK BOX B** if you generate one of the hazardous wastes listed above, but have been unable to locate an alternative treatment to land disposal. NOTE: If this waste is disposed in a landfill or surface impoundment, the unit must meet minimum technological requirements (i.e. a double liner, leachate collection system and groundwater monitoring).

**MARK BOX C** if you have treated the soft-hammer waste in accordance with the demonstration submitted by the generator.

**MARK BOX D** if your soft-hammer waste is being land disposed in a unit other than a landfill or surface impoundment. The certification and demonstration requirements do not apply until treatment standards for deep well injection are set, or May 8, 1990, whichever comes first. Currently, the only requirement is that the facility be notified that the site is a soft-hammer waste (Except K048, K049, K050, K051, K052, K062, and K071, which are subject to a two year variance).

NOTE: All treatment and storage facilities which receive a demonstration and certification accompanying a "soft-hammer" waste shipment must keep copies in the operating record for 5 years and forward the originals with the shipment to a treatment/disposal facility.

From: BASF Chemical Corporation  
EPA ID# MTD064197742  
1609 Biddle Ave  
Wyandotte, MI 48192

To: Regional Administrator U.S. E.P.A.  
Mr. Valdas V. Adamkus  
Region V U.S. E.P.A.  
230 S. Dearborn Street  
Chicago, IL 60604

Re: Soft Hammer Demonstration/Certification

In accordance with the Environmental Protection Agency's land disposal restrictions governing the first third schedule wastes, I have enclosed a soft hammer demonstration and certification as per CFR 168.8(a)(2) for the waste stream described by:

US EPA Hazardous Waste Code(s): U221

SolidTek profile number: 0127 - 02

Common Name: Toluene Diamine

The demonstration reflects our efforts to locate practically available treatment that affords the greatest environmental benefit. Based on our search for such treatment, we have determined that (check one):

- 1). No practically available treatment exists, See attached demonstration, attachments 2 and 3, for further details.
- x   2). The best practically available treatment is: D  
(insert the treatment number(s) from the attachment 4). See the attached demonstration, attachments 2, 3, and 4 for further details.

If any further information is required, please contact me at:

(313) 246 - 6429 (telephone number).

 (Signature)

Lyman A. Anderson (Type or Printed Name)

Ecology Supervisor (Title)

10/12/88 (Date)

# SOFT HAMMER DEMONSTRATION - ATTACHMENT 2

<u>FACILITY OWNER/OPERATOR</u>	<u>LOCATION</u>	<u>TREATMENT MET</u>	<u>TELEPHONE</u>	<u>CONTACT</u>	<u>DATE</u>	<u>EXPLAN</u>	<u>ON *</u>
1. SolidTek Systems, Inc. 5371 Cook Road Morrow, GA 30260		Fuels Blending and Incineration	(419) 874-8144	Jeff Huskisson	10/12/88	D	
2.							
3.							
4.							

\* - EXPLANATION - for no available treatment - insert the number key from Attachment 3.  
for available treatment - insert the letter key from Attachment 4.

### ATTACHMENT 3

#### FIRST THIRD "SOFT-HAMMER" DEMONSTRATION No Available Practical Alternative to Land Disposal

##### Explanation Of Why No Treatment Is Practically Available

I have not been able to locate practically available treatment or recovery for the waste described in the cover letter because, (refer to checked items, and any additional comments):

- (1) \_\_\_\_\_ No recovery facilities have been located which will be able to recover the hazardous constituents of this waste.
- (2) \_\_\_\_\_ There is no safe and legal treatment or recovery operation which I can perform practically at my site that will appreciably reduce the toxicity or mobility of the hazardous constituents of the waste.
- (3) \_\_\_\_\_ I have not been treating this waste at my site in the past, using a treatment technology which has been found to appreciably reduce the toxicity or mobility of the hazardous constituents of the waste.
- (4) \_\_\_\_\_ Stabilization treatment will not appreciably reduce the toxicity or mobility of the hazardous constituents of this waste.
- (5) \_\_\_\_\_ Incineration, thermal oxidation or other destruction technologies will not appreciably reduce the toxicity or mobility of the hazardous constituents of the waste.
- (6) \_\_\_\_\_ I have examined the possibilities of recovery/recycling, incineration, other destruction technologies, and stabilization, in that order or preference, I have not been able to locate any such treatment facilities that will accept this waste.
- (7) \_\_\_\_\_ The cost of treatment, shipment and disposal at the treatment/recovery facilities that have been located is greater than or equal to twice the cost of shipment and disposal at the RCRA landfill.

Additional Comments:

(8) \_\_\_\_\_

ATTACHMENT 4  
FIRST THIRD "SOFT-HAMMER DEMONSTRATION  
Soft-Hammer Waste For Which Alternative Treatment or Recovery Has Been Located

- A Rotary Kiln Incineration is a practically available technology that yields the greatest environmental benefit. This waste is principally organic residues which are best destroyed by incineration.
- B Liquid Injection Incineration is a practically available technology that yields the greatest environmental benefit. This waste is principally pumpable organic residues which are best destroyed by incineration.
- C Fuels Blending is a practically available technology that yields the greatest environmental benefit. This waste has a heating value greater than or equal to 5,000 BTU per pound and can be best reused as a hazardous waste fuel.
- D A combination of Fuels Blending, and/or Rotary Kiln or Liquid Injection is a practically available technology that yields the greatest environmental benefit. This is due to the properties of my waste which may vary slightly, from one load to the next. Solid nondispersible residues will need to be incinerated; but the pumpable or dispersible portions may be blended for hazardous waste fuels usage (when the BTU's, chlorine, ash, etc. are within the required ranges); or else incinerated.
- E Chemical Precipitation (with filtration or decanting) is a practically available technology that yields the greatest environmental benefit. This should reduce the toxicity/mobility of the hazardous constituents by reducing the toxic volume of the waste.
- F Filtration is a practically available technology that yields the greatest environmental benefit. This should reduce the toxicity/mobility of the hazardous constituents by reducing the toxic volumes of the waste.
- G Stabilization is a practically available technology that yields the greatest environmental benefit. Stabilization will reduce the mobility of the hazardous constituents of the waste. I have examined recovery and destruction technologies and found that they were not practically available for the following reason(s):
- H Chemical oxidation is a practically available technology that yields the greatest environmental benefit. Chemical oxidation will reduce the toxicity of hazardous constituents in the waste.

This waste is not suitable for incineration or fuels due to:

- I the low percentage of hazardous organic constituents presents,  
J the low heating value of the waste,  
K the high percentage of inorganic constituents present,  
L the lack of located available capacity of incineration or fuels blending facilities.

This waste is not suitable for recovery due to:

- M The hazardous constituents are present in concentrations that make recovery technologically impossible.  
N The hazardous constituents are present in concentrations that make recovery economically infeasible.  
O No recovery facilities were located that could treat this type of waste.  
P No recovery facilities were located that had capacity to treat this type of waste.  
Q The treatment technology identified above is a past practice that has been demonstrated to meaningfully reduce the toxicity and/or mobility of the waste.

Additional Comments:

**"SOFT-HAMMER WASTES RESTRICTED AS OF JUNE 8, 1988  
LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM  
FIRST-THIRD WASTES FOR WHICH NO TREATMENT STANDARDS HAVE BEEN SET**

Generator Name: BASF Corp. SolidTek Profile Number: 0127-36  
EPA ID Number: MID064197742 Manifest Number: 12834

This form is submitted to SolidTek Systems, Inc., in accordance with 40 CFR Part 268, which restricts the land disposal of certain hazardous wastes. I have marked the appropriate box below to indicate whether alternative treatment has been found for my waste. (See reverse side for the list of "soft-hammer" wastes and instructions for using this form.)

☒ **A. SOFT-HAMMER WASTE FOR WHICH ALTERNATIVE TREATMENT OR RECOVERY HAS BEEN LOCATED**

The soft-hammer waste(s) I generate is (are) Toluene Diamine (U221). I have identified a practically available treatment technology that is the most environmentally beneficial while still meeting the criteria for being practical. Accompanying the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 268.8 (a) (1), including a list of facilities and facility officials contacted, complete with addresses, telephone numbers, and contact dates, and a justification that I have chosen the best treatment that is practically available.

"I certify under the penalty of law that the requirements of 40 CFR 268.8 (a) (1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

☐ **B. SOFT-HAMMER WASTE FOR WHICH DISPOSAL IN LANDFILL OR SURFACE IMPOUNDMENT IS THE ONLY PRACTICAL ALTERNATIVE TO TREATMENT CURRENTLY AVAILABLE**

The soft-hammer waste(s) I generate or have treated is (are) \_\_\_\_\_. I have made a good-faith effort to locate and contract with treatment and/or recovery facilities currently available which can meaningfully reduce the toxicity or mobility of hazardous constituents in the waste, as an alternative to land disposal. I have found no such alternative facility. Accompanying the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 268.8 (a) (2), including a list of facilities and facility officials contacted, addresses, telephone numbers, contact dates and an explanation of why no treatment is practically available. This soft-hammer waste must be disposed of in landfill or available impoundment meeting the minimum technological requirements until treatment standards are set for the waste or May 8, 1990 whichever occurs first.

"I certify under penalty of law that the requirements of 40 CFR 268.8 (a) (1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

☐ **C. SOFT-HAMMER WASTE HAS BEEN TREATED BY TREATMENT OR RECOVERY FACILITY**

The following waste(s) has been treated in accordance with the generator's demonstration: \_\_\_\_\_

"I certify under the penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been maintained properly so as to comply with treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

☐ **D. SOFT-HAMMER WASTE DESTINED FOR LAND DISPOSAL OTHER THAN IN LANDFILL OR SURFACE IMPOUNDMENT (e.g. DEEP INJECTION WELL) OR SUBJECT TO A TWO YEAR VARIANCE**

The soft-hammer waste(s) I generate is (are) \_\_\_\_\_. This waste is being disposed of in a land disposal unit other than a landfill or surface impoundment and therefore is not subject to the certification and demonstration requirements of Section "B".

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

*Lyman A. Anderson* Ecology Supervisor 10/12/88  
Signature Date

**BASF Corporation**  
Chemicals Division

1182-AT

**BASF**

CERTIFIED MAIL # P 716 263 322  
RETURN RECEIPT REQUESTED

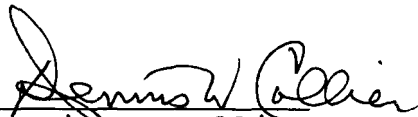
Date: August 24, 1989  
To: Regional Administrator  
Address: 230 South Dearborn  
Chicago, IL 60604  
RE: Soft Hammer Demonstration/Certification for  
materials destined for CWM Chemical Services

RECEIVED  
AUG 31 1989  
OFFICE OF RCRA  
WASTE MANAGEMENT DIVISION  
EPA, REGION V

In accordance with the Environmental Protection Agency's land disposal restrictions governing the scheduled waste BASF Corporation has enclosed a Soft Hammer Demonstration and Certification as per 40CFR 268.8 (a) (1) for CWM profile E-69667 bearing EPA waste code(s) U-073. This demonstration (see attached) has been prepared following communication with Chemical Waste Management and reflects our efforts to locate practically available treatment which affords the greatest environmental benefit. We believe that the information submitted is true, accurate and complete. Based on this information we have determined that incineration is the best practically available treatment.

If any further information is required, please contact me at 616-392-2391.

Sincerely,

  
Dennis W. Collier



**"SOFT HAMMER" WASTES\*****LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM**Generator Name: BASF Corp Manifest Number: 12 3131902EPA Hazardous Waste Codes<sup>1</sup>: U-073 CWM Profile Number: E-69667

This form is submitted to \_\_\_\_\_ in accordance with 40 CFR Part 268, which restricts the land disposal of certain hazardous wastes. I have marked the appropriate box below to indicate whether alternative treatment has been found for my waste. (See reverse side for the list of "soft-hammer" wastes and instructions on using this form.)

**A. SOFT-HAMMER WASTE FOR WHICH ALTERNATIVE TREATMENT OR RECOVERY HAS BEEN LOCATED**

The soft-hammer waste I generate is (are) U-073. I have identified a practically available treatment technology that yields the greatest environmental benefit. Together with the initial shipment of waste represented by this form, I submitted a demonstration to the Regional Administrator in accordance with 40 CFR 268.3(a)(1), including a list of facilities and facility officials contacted, complete with addresses, telephone numbers, and contact dates, and a justification that I have chosen the best treatment that is practically available.

"I certify under penalty of law that the requirements of 40 CFR 268.3(a) have been met and I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

**B. SOFT-HAMMER WASTE FOR WHICH DISPOSAL IN LANDFILL OR SURFACE IMPOUNDMENT IS THE ONLY PRACTICAL ALTERNATIVE TO TREATMENT CURRENTLY AVAILABLE**

The soft-hammer waste(s) I generate or have treated is (are) \_\_\_\_\_. I have made a good-faith effort to locate and contract with treatment and recovery facilities practically available which can meaningfully reduce the toxicity or mobility of hazardous constituents in the waste, as an alternative to land disposal. I have found no such alternative facility. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 268.3(a), including a list of facilities and facility officials contacted, addresses, telephone numbers, contact dates, and an explanation of why no treatment is practically available. This soft-hammer waste must be disposed of in a landfill or surface impoundment meeting the minimum technological standards until treatment standards are set for the waste or May 8, 1990, whichever occurs first.

"I certify under penalty of law that the requirements of 40 CFR 268.3(a)(1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment."

**C. TREATMENT OR RECOVERY FACILITY HAS TREATED THE WASTE**

The following soft-hammer waste(s) was treated in accordance with the generator's demonstration: \_\_\_\_\_

"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

**D. SOFT-HAMMER WASTE DESTINED FOR LAND DISPOSAL OTHER THAN IN LANDFILL OR SURFACE IMPOUNDMENT (e.g. DEEP INJECTION WELL)**

The soft-hammer waste(s) I generate is (are) \_\_\_\_\_. This waste is being disposed of in a land disposal unit other than a landfill or surface impoundment and therefore is not subject to the certification and demonstration requirements described above.

Signature: James W. O'BrienTitle: Governmental Affairs SpecialistDate: 8/24/89

<sup>1</sup>List all EPA Waste Codes present in this shipment of waste. Attach separate sheet, listing waste codes if necessary.